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09/738,368	12/15/2000	Byron C. Gehman	AUS920000810US1	9818

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EXAMINER

ABEL JALIL, NEVEEN

ART UNIT PAPER NUMBER

2175

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/738,368

Applicant(s)

GEHMAN ET AL.

Examiner

Neveen Abel-Jalil

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/15/00
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the abstract is longer than 150 words. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 11-13, 16, and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Cassidy et al. (U.S. Patent No. 66,249,883 B1).

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As to claim 1, Cassidy et al. discloses a method for processing directory events, comprising:

operating a directory service provider server to perform a data manipulation within a master directory database (See column 2, lines 40-63);

operating an event master server to assign a sequence number to said data manipulation (See column 5, lines 60-67, and see column 6, lines 1-10); and

operating said event master server to store said sequence number within said master directory database (See column 8, lines 25-67).

As to claim 2, Cassidy et al. discloses comprising:

operating said event master server to provide an event message to an event service server, said event message including said sequence number and an event notification (See columns 9-13, table 1, wherein “event notification” are represented by “alerts” listed relating to different event occurrences);

operating said master database to replicate said sequence number to a replicate directory database (See column 16, lines 46-67, and see column 17, lines 1-17); and

operating said event service server to provide said event notification to an event client server in response to said replication of said sequence number to said replicate directory database (See column 14, lines 50-67, and see column 15, lines 1-25).

As to claim 3, Cassidy et al. discloses comprising:

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operating said event client server to provide said event notification to at least one directory client registered to receive said event notification (See column 17, lines 31-50).

As to claim 4, Cassidy et al. discloses a method for processing directory events, comprising:

operating a master database to replicate a data manipulation and a sequence number to a replicate directory database, said sequence number corresponding to an event notification; and operating said event service server to provide said event notification to an event client server in response to said replication of said sequence number to said replicate directory database (See column 16, lines 65-67, and see column 17, lines 1-50).

As to claim 5, Cassidy et al. discloses comprising:

operating said event client server to provide said event notification to at least one directory client registered to receive said event notification (See column 8, lines 25-60).

As to claim 6, Cassidy et al. discloses a method for processing directory events, comprising:

monitoring a first queue for a modified message indicative of a data manipulation within a master directory database (See column 17, claim 1 language);

assigning a first sequence number to said modified message when said modified message is within said first queue (See column 5, lines 60-67, and see column 6, lines 1-10); and

storing said first sequence number within said master directory database (See column 7, lines 10-30).

As to claim 11, Cassidy et al. discloses a system, comprising:

a master directory database operable to store data (See column 5, lines 1-59);

a directory service provider server operable to manipulate said data (See column 5, lines 1-59); and

an event master server operable to assign a sequence number to any manipulation of said data within said master directory database by said directory service provider server (See column 5, lines 60-67, and see column 6, lines 1-23).

As to claim 12, Cassidy et al. discloses wherein said event master server is further operable to store said sequence number within said master directory database (See column 8, lines 25-67).

As to claim 13, Cassidy et al. discloses comprising:

a replicate directory database operable to store said data, wherein said master directory database is further operable to replicate said data and a second sequence number to said replicate directory database (See column 7, lines 10-47, also see figure 8).

As to claim 16, Cassidy et al. discloses a computer program product in a computer usable medium for processing a directory event, said computer program product comprising:

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a means for monitoring a first queue for a modified message (See column 2, lines 40-63);

a means for assigning a first sequence number to said modified message when said modified message is within said first queue (See column 5, lines 60-67, and see column 6, lines 1-23);

a means for storing said first sequence number within a master directory database (See column 7, lines 10-26); and

a means for providing an event message including said first sequence number and an event notification (See column 8, lines 25-67).

As to claim 19, Cassidy et al. discloses a system, comprising:

an event master server operable to assign a sequence number to a manipulation of a data within a master directory database (See column 5, lines 60-67, and see column 6, lines 1-23);

an event service server operable to determine said sequence number being stored within a replicate directory database (See column 7, lines 10-26); and

an event client server operable to provide an event notification to at least one directory client when said sequence number is being stored within said replicated directory database (See column 8, lines 25-67), said event notification corresponding to said manipulation of said data (See column 2, lines 40-63).

As to claim 20, Cassidy et al. discloses a system, comprising:

a directory client (See column 5, lines 60-67);

a master directory database operable to store data;

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a directory service provider server operable to manipulate said data (See column 7, lines 10-47); and

a directory event subsystem operable to notify said directory client of any manipulation of said master directory database by said directory service provider server (See column 8, lines 61-67, also see column 14, lines 36-67).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-10, 14-15, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cassidy et al. (U.S. Patent No. 66,249,883 B1) in view of Vahalia et al. (U.S. Patent No. 6,192,408 B1).

As to claim 7, Cassidy et al. discloses comprising:

providing said first sequence number to a second queue monitoring said second queue for said first sequence number (See column 7, lines 10-55, also see column 14, lines 50-67); and

Cassidy et al. does not teach polling a replicate directory database for a second sequence number in response to said first sequence number being within said second queue.

Vahalia et al. teaches polling a replicate directory database for a second sequence number

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in response to said first sequence number being within said second queue (See column 23, lines 50-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cassidy et al. to include polling a replicate directory database for a second sequence number in response to said first sequence number being within said second queue.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cassidy et al. by the teaching of Vahalia et al. to include polling a replicate directory database for a second sequence number in response to said first sequence number being within said second queue because polling the replica directory allows for means to efficiently constructing failure recovery and reconstructing missing data (error detection and prevention).

As to claim 8, Cassidy et al. as modified discloses comprising:
comparing said first sequence number and said second sequence number; and
providing an event notification to at least one directory client when said first sequence number is less than or equal to said second sequence number (See column 2, lines 40-51).

As to claim 9, Cassidy et al. discloses a method for processing directory events,
comprising:

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providing a first sequence number to a queue, said first sequence number corresponding to a data manipulation within a master directory database (See column 5, lines 60-67, also see column 6, lines 1-10, and see column 17, claim 1 language);

monitoring said queue for said first sequence number; and

Cassidy et al. does not teach polling a replicate directory database for a second sequence number in response to said first sequence number being within said second queue.

Vahalia et al. teaches polling a replicate directory database for a second sequence number in response to said first sequence number being within said second queue (See column 23, lines 50-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cassidy et al. to include polling a replicate directory database for a second sequence number in response to said first sequence number being within said second queue.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cassidy et al. by the teaching of Vahalia et al. to include polling a replicate directory database for a second sequence number in response to said first sequence number being within said second queue because polling the replica directory allows for means to efficiently constructing failure recovery and reconstructing missing data (error detection and prevention).

As to claim 10, Cassidy et al. as modified discloses comprising:

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comparing said first sequence number and said second sequence number (See column 18, claim 4 language, also see column 16, lines 65-67, and see column 17, lines 1-5); and

providing an event notification to at least one directory client when said first sequence number is less than or equal to said second sequence number (See column 14, lines 50-67).

As to claim 14, Cassidy et al. does not teach comprising:

an event service server operable to poll said replicate directory database for said second sequence number in response to said first sequence number from said event master server.

Vahalia et al. teaches comprising:

an event service server operable to poll said replicate directory database for said second sequence number in response to said first sequence number from said event master server (See column 23, lines 50-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cassidy et al. to include comprising: an event service server operable to poll said replicate directory database for said second sequence number in response to said first sequence number from said event master server.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cassidy et al. by the teaching of Vahalia et al. to include comprising: an event service server operable to poll said replicate directory database for said second sequence number in response to said first sequence number from said event master server because polling the replica directory allows for means to efficiently constructing failure recovery and reconstructing missing data (error detection and prevention).

As to claim 15, Cassidy et al. as modified discloses comprising:
a directory client (See column 5, lines 42-67); and
an event client server operable to provide an event notification to said directory client,
wherein said event service server is further operable to provide said event notification to said
event client server when said first sequence number is less than or equal to said second sequence
number (See column 14, lines 55-67, and see column 15, lines 1-50, also see column 18, claim 4
language, also see column 8, lines 25-60).

As to claim 17, Cassidy et al. discloses comprising:
a means for monitoring a second queue for a first sequence number (See column 7, lines
10-55, also see column 14, lines 50-67);
a means for comparing said first sequence number and said second sequence number; and
a means for providing said event notification when said first sequence number is less than
or equal to said second sequence number (See column 2, lines 40-51).

Cassidy et al. does not teach a means for polling a replicate database for a second
sequence number in response to said second sequence number being within said second queue.

Vahalia et al. teaches a means for polling a replicate database for a second sequence
number in response to said second sequence number being within said second queue (See
column 23, lines 50-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the
invention was made to have modified Cassidy et al. to include a means for polling a replicate

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database for a second sequence number in response to said second sequence number being within said second queue.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cassidy et al. by the teaching of Vahalia et al. to include a means for polling a replicate database for a second sequence number in response to said second sequence number being within said second queue because polling the replica directory allows for means to efficiently constructing failure recovery and reconstructing missing data (error detection and prevention).

As to claim 18, Cassidy et al. discloses a computer program product in a computer usable medium for processing a directory event, said computer program product comprising:

a means for monitoring a queue for a first sequence number (See column 7, lines 10-55, also see column 14, lines 50-67);

a means for comparing said first sequence number and said second sequence number; and

a means for providing an event notification when said first sequence number is less than or equal to said second sequence number (See column 2, lines 40-51).

Cassidy et al. does not teach a means for polling a replicate database for a second sequence number in response to said second sequence number being within said queue.

Vahalia et al. teaches a means for polling a replicate database for a second sequence number in response to said second sequence number being within said queue (See column 23, lines 50-62).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cassidy et al. to include a means for polling a replicate database for a second sequence number in response to said second sequence number being within said queue.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Cassidy et al. by the teaching of Vahalia et al. to include a means for polling a replicate database for a second sequence number in response to said second sequence number being within said queue because polling the replica directory allows for means to efficiently constructing failure recovery and reconstructing missing data (error detection and prevention).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Beeler, Jr. (U.S. Patent No. 5,819,020) teaches real time backup system.

Martin (U.S. Patent No. 6,247,017 B1) teaches server-client communication over a network.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 703-305-8114.

The examiner can normally be reached on 8:00AM-4: 30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Neveen Abel-Jalil
November 20, 2003

Charles Rones
CHARLES RONES
PRIMARY EXAMINER